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FORM PTO-1390
REV. 5-93

US DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

ATTORNEYS DOCKET NUMBER
P00,1814

U.S.APPLICATION NO. (if known, see 37 CFR 1.5)
09/674755

INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/DE99/01295	**03 May 1999**	**08 May 1998**

TITLE OF INVENTION
BROADBAND COMMUNICATION SYSTEM

APPLICANT(S) FOR DO/EO/US
Manfred Tasto and Kurt Aretz

Applicant herewith submits to the United States /Designated/Elected Office (DO/EO/US) the following items and other information:

1. ■ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. □ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ■ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay.
4. ■ A proper Demand for International Preliminary Examination will be made by the 19th month from the earliest claimed priority date.

5. ■ A copy of International Application as filed (35 U.S.C. 371(c)(2))
   a. ■ is transmitted herewith (required only if not transmitted by the International Bureau).
   b. □ has been transmitted by the International Bureau.
   c. □ is not required, as the application was filed in the United States Receiving Office (RO/US)
6. ■ A translation of the International Application into English (35 U.S.C. 371(c)(2).

7. ■ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. §371(c)(3))
   a. □ are transmitted herewith (required only if not transmitted by the International Bureau).
   b. □ have been transmitted by the International Bureau.
   c. □ have not been made; however, the time limit for making such amendments has NOT expired.
   d. ■ have not been made and will not be made.

8. □ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).

9. ■ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). **Executed**

10. ■ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. ■ An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98; **(PTO 1449, Prior Art, Search Report)**.

12. ■ An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included.
    (SEE ATTACHED ENVELOPE)

13. ■ A FIRST preliminary amendment.
    □ A SECOND or SUBSEQUENT preliminary amendment.

14. □ A substitute specification.

15. □ A change of power of attorney and/or address letter.

16. ■ Other items or information:
    a. ■ Submission of Drawings **- One sheet of Drawings**

    b. ■ **EXPRESS MAIL #EJ077704156US dated November 3, 2000.**

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09/ 674755	INTERNATIONAL APPLICATION NO PCT/DE99/01295	ATTORNEY'S DOCKET NUMBER P00,1814

BASIC NATIONAL FEE (37 C.F.R. 1.492(a)(1)-(5):

Search Report has been prepared by the EPO or JPO $860.00

International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) $670.00

No international preliminary examination fee paid to USPTO (37 C.F.R. 1.482) but international search fee paid to USPTO (37 C.F.R. 1.445(a)(2) $760.00

Neither international preliminary examination fee (37 C.F.R. 1.482) nor international search fee (37 C.F.R. 1.445(a)(2) paid to USPTO $970.00

International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) ..... $ 96.00

ENTER APPROPRIATE BASIC FEE AMOUNT =				$860.00	
Surcharge of $130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 C.F.R. 1.492(e)).				$ 0	
Claims	Number Filed		Number Extra	Rate	
Total Claims	23	- 20 =	3	X $ 18.00	$54.00
Independent Claims	3	- 3 =	0	X $ 80.00	$ 0
Multiple Dependent Claims				$270.00 +	$
TOTAL OF ABOVE CALCULATIONS =					$914.00
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also be filed. (Note 37 C.F.R. 1.9, 1.27, 1.28)					$
SUBTOTAL =					$914.00
Processing fee of $130.00 for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(f)). +					$
TOTAL NATIONAL FEE =					$914.00
Fee for recording the enclosed assignment (37 C.F.R. 1.21(h). The assignment must be accompanied by an appropriate cover sheet (37 C.F.R. 3.28, 3.31). $40.00 per property +					
TOTAL FEES ENCLOSED =					$914.00
				Amount to be refunded	$
				charged	$

a. ■ A check in the amount of $ **914.00** to cover the above fees is enclosed.

b. □ Please charge my Deposit Account No. _____ in the amount of $ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.

c. ■ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. **501519**. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 C.F.R. 1.494 or 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Schiff Hardin & Waite
Patent Department
71st Floor Sears Tower
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Brett A Valiquet
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Brett A. Valiquet
NAME

27,841
Registration Number

09/674755
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BOX PCT

IN THE UNITED STATES ELECTED OFFICE

OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER THE PATENT COOPERATION TREATY-CHAPTER II

PRELIMINARY AMENDMENT

APPLICANT: **MANFRED TASTO ET AL**

DOCKET NO: P00,1814

SERIAL NO: GROUP ART UNIT:

EXAMINER:

INTERNATIONAL APPLICATION NO: PCT/DE99/01295

INTERNATIONAL FILING DATE: 03 May 1999

INVENTION: **"BROADBAND COMMUNICATION SYSTEM"**

09/674755 - 110300

Assistant Commissioner for Patents,
Washington, D.C. 20231

Sir:

As a Preliminary Amendment for entry into the National Stage for the above-identified PCT application, the following is submitted:

IN THE ABSTRACT:

Please amend the Abstract as follows:

Delete **"ABSTRACT"** and substitute --**ABSTRACT OF THE DISCLOSURE**--.

Please delete the title after **"ABSTRACT".**

At line 3, delete "A" and substitute --In--, after "system" insert --,--, delete "comprises.

At line 4, delete "(1)" and substitute --are provided--.

At line 5, delete "(2)".

At line 7, delete "(1)".

At line 8, delete "fashioned" and substitute --designed-.

At line 9, delete "(1)", delete "means" and substitute --unit--, delete "(5)".

At line 10, before "cordless" insert --the--.

At line 11, delete "(1)", before "communication" insert --a--, delete "(2)".

At line 12, delete "The invention enables a" and substitute --A--, after "transmission" insert --is thus enabled--.

At line 13, delete "(2)".

At line 14, delete "outlay" and substitute --expense--.

Delete Line 15.

IN THE SPECIFICATION:

Please amend the specification as follows (where specification amendments are to the annex pages (substitute pages) that has been so indicated):

On page 1, before the title, insert

--S P E C I F I C A T I O N

TITLE--

after the title, as a separate line, insert

09/474,650

--**BACKGROUND OF THE INVENTION**--.

On substitute page 1, at line 3, delete "(1)".

On substitute page 1, at line 8, delete "requires [sic]" and substitute --require--.

On substitute page 1, at line 30, delete "To that end" and substitute --For that purpose--.

On substitute page 1a, at line 1, delete "fashioned" and substitute --designed-

On substitute page 1a, before line 5, insert the following title:

--**SUMMARY OF THE INVENTION**--.

On substitute page 1a, at line 7, delete "outlay" and substitute --expense--.

On substitute page 1a, at line 8, delete "the" and substitute --a--.

On substitute page 1a, at line 8, delete "disclosed".

On substitute page 1a, at the last line, delete "in claim 1".

On page 2, at line 2, after "equipment" insert --unit--.

On page 2, at line 3, delete "fashioned" and substitute --designed--.

On page 2, at line 4, delete "Developments and advantageous".

On page 2, delete line 5.

On page 2, at line 8, delete "outlay" and substitute --expense--.

On page 2, at line 19, delete "ensue" and substitute --occurs--.

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On page 2, at line 30, before "infrared" insert --an--.

On page 3, at line 1, delete "means (5)" and substitute --unit 5--.

On page 3, at line 3, delete "stations, the control means" and substitute --stations. The control unit--.

On page 3, at line 6, before "what" insert --in--.

On page 3, at line 8, insert --,-- after "factory".

On page 3, at line 10, delete "ca" and substitute --can--.

On page 3, at line 14, delete "outlay" and substitute --expense--.

On page 3, at line 19, delete "drawing, where the sole" and substitute --drawing.--, delete "Figure 1 shows an".

On page 3, before line 20, insert the following heading:

--BRIEF DESCRIPTION OF THE DRAWING--

On page 3, at line 20, before "exemplary" insert --Figure 1 shows an--, delete "inventive", after "system" insert --of the invention--.

On page 3, before line 21, insert the following heading:

--DESCRIPTION OF THE PREFERRED EMBODIMENTS--.

On page 3, at line 22, before "pointed" insert --be--.

On page 3, at line 29, delete "thereby" and substitute --therefore--.

On page 3, at the last line, delete "a matter of".

On page 4, at line 4, delete ",respectively,".

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On page 4, at line 8, after "infrared" insert --radiation--.

On page 4, at line 14, delete "ensues" and substitute --occurs--.

On page 4, at line 15, delete "outlay" and substitute --expense--, delete "inventive", after "system" insert --of the invention--.

On page 4, at line 17, delete "means" and substitute --unit--, before "bus" insert --a--.

On page 4, at line 19, delete "means" and substitute --unit--.

On page 4, at line 21, delete "means" and substitute --unit--, before "external" insert --the--, delete "ensue" and substitute --occur--.

On page 4, at line 23, delete "ensue" and substitute --occur--.

On page 4, at line 26, delete "fashioned" and substitute --designed--.

On page 4, at line 28, delete ",respectively,".

On page 4, at line 29, delete ", respectively,".

On page 5, at line 3, delete "inventive", after "system" insert --of the invention--.

On page 5, at line 5, delete "outlay" and substitute --expense--.

On page 5, as the last paragraph, insert the following paragraph:

--Although various minor changes and modifications might be proposed by those skilled in the art, it will be understood that our wish is to include within the claims of the patent warranted hereon all such changes

and modifications as reasonably come within our contribution to the art.--

IN THE CLAIMS:

On page 6 of the claims, delete "**PATENT CLAIMS**" and substitute --**WE CLAIM AS OUR INVENTION**--.

Please cancel claims 1-16 without prejudice.

Please substitute claims 17-38 as follows:

17. A broadband communication system, comprising:

a plurality of cordless communication devices connected to one another for cordless communication with at least one communication terminal within a communication cell; and

the cordless communication devices being connected to a power supply network and designed for broadband data transmission via the power supply network.

18. The communication system according to claim 17 wherein the cordless communication devices are designed for cordless data transmission via radio.

19. The communication system according to claim 17 wherein the cordless communication devices are designed for cordless data transmission via infrared radiation.

20. The communication system according to claim 19 wherein the data transmission between the cordless communication devices and the communication terminal

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occurs with amplitude modulation of an infrared base band.

21. The communication system according to claim 17 wherein the data transmission between the cordless communication device and the communication terminal occurs by higher-grade digital modulation.

22. The communication system according to claim 19 wherein the infrared radiation has a wavelength from 800 nm to 100 nm.

23. The communication system according to claim 19 wherein the infrared radiation has a wavelength from 1200 nm to 1400 nm.

24. The communication system according to claim 19 wherein a source of the infrared radiation comprises a surface-emitting semiconductor laser.

25. The communication system according to claim 17 further comprising a control unit for controlling data communication between the cordless communication devices.

26. The communication system according to claim 25 wherein the control unit produces a connection to an external communication network.

27. The communication system according to claim 26 wherein the connection to the external communication

network is produced with at least one of a coaxial cable and an optical fiber cable.

28. The communication system according to claim 26 wherein the connection to the external communication network occurs via a radio connection.

29. The communication system according to claim 17 wherein the cordless communication devices are designed for data transmission via at least one of a 230 volt and a 110 volt power supply network.

30. The communication system according to claim 17 wherein the communication cell is formed by a room in a building.

31. The communication system according to claim 17 wherein the cordless communication devices are designed to be screwed into an incandescent bulb socket.

32. The communication system according to claim 31 wherein at least one of the cordless communication devices comprises its own incandescent bulb socket.

33. A broadband communication system, comprising:

at least first and second cordless communication devices in respective first and second communication cells separated from each other by a wall, the first and second communication devices being connected to each other via a power supply network permitting broadband

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data transmission via the power supply network between the first and second cordless communication devices; and

at least one communication terminal within at least one of said first and second communication cells which communicates with at least one of the first and second cordless communication devices depending upon which cell the at least one cordless communication device is located in.

34. The system according to claim 33 wherein at least one of the cordless communication devices is plugged into a power outlet of the power supply network.

35. The system according to claim 33 wherein at least one of the cordless communication devices is screwed into a light bulb receptacle of the power supply network.

36. The system according to claim 33 wherein the broadband data transmission occurs with the at least one communication terminal at a frequency greater than 10 GHz.

37. A method for broadband communication, comprising the steps of:

providing at least first and second cordless communication devices located in respective first and second communication cells;

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connecting the first and second cordless communication devices together via a power supply network which also supplies power to the first and second communication devices;

making broadband data transmissions between the first and second cordless communication devices via the power supply network; and

communicating with at least one communication terminal located within at least one of said first and second communication cells in a cordless fashion via the respective cordless communication device located in the respective communication cell.

38. The method according to claim 37 including the step of communicating in cordless fashion with the at least one communication terminal at a frequency greater than 100 GHz.

39. The method according to claim 37 including the step of communicating between the cordless communication devices at a frequency of greater than 10 GHz via the power supply network.

REMARKS

The specification and abstract have been amended in accordance with U.S. practice.

New claims 17 through 32 generally correspond to the PCT prosecuted claims but are drawn in accordance with U. S. format. Also, additional independent and dependent claims 33-39 have been provided.

09/830414 05/04/2001

An Information Disclosure Statement is enclosed.

Respectfully submitted,

(Reg.No. 27,841)

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Attorneys for Applicants

DOCKET: 95-4950

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ART 34 AMDT

BROADBAND COMMUNICATION SYSTEM

The invention is directed to a broadband communication system with a plurality of cordless communication devices (1) connected to one another for cordless communication with at least one communication terminal device within a communication cell.

Demanding communication services such as the transmission of video data, for example for television transmission, video playback or picture telephony, requires [sic] high data rates on the order of magnitude of 10 megabits per second. The bandwidths currently employed in cordless telephones (DECT) or, respectively, in mobile radio telephony (for example, according to GSM standard) at carrier frequencies of approximately 900 MHz through approximately 2000 MHz are therefore no longer adequate for a cordless data transmission over short distances, for example in the house and garden area or in office buildings or the like. On the contrary, higher frequencies are needed, for example above 10 GHz.

The informational brochure "Innovationskolleg Kommunikationssysteme" of the Institute for Communications Technology of the Technical University Dresden proposes that radio frequencies in the region of 60 GHz be employed for cordless digital broadband data transmission within buildings. However, it is generally not possible to penetrate masonry at these high frequencies. A respective radio base station must therefore be installed in every room in which a cordless communication is to be possible.

The informational brochure "Multimediakommunikation auf integrierten Netzen und Terminals" of the Technical University Braunschweig, Institute for Communications Technology, dated 14 August 1997, proposes that the power supply network be utilized for the data transmission within buildings.

GB-A-2 229 022 discloses a system wherein electrical devices connected to a power lead via data terminal devices can be remotely controlled by control data packets via a control unit likewise connected to the power lead or an infrared remote control, whereby the control data packets can comprise a size of up to 43 bytes given a maximum transmission rate of 9600 bits/s. To that end, the data terminal devices

are fashioned such that they can receive the control data packages either from the control unit via the power mains or via electromagnetic waves (infrared) via the infrared remote control.

An object of the present invention is to enable a cordless broadband communication within buildings and in the environment of buildings with optimally low installation outlay.

This object is achieved by the broadband communication system disclosed in claim 1 comprising a plurality of cordless communication devices connected to one

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another for cordless communication with at least one communication terminal equipment within a communication cell, whereby the cordless communication devices are connectible to the power supply network and are fashioned for broadband data transmission via the power supply network. Developments and advantageous improvements of the inventive communication system are described in the subclaims.

Since power supply lines are usually present in every building, the invention thus allows a cordless broadband communication given the lowest possible installation outlay.

The cordless communication between the cordless communication devices and communication terminals can be implemented via radio, preferably at frequencies above 10 GHz.

Alternatively, the cordless data transmission between communication device or base station and respective terminal device can be implemented by infrared radiation. As a result thereof, the negative influence on electrical component parts present in the communication cell due to radio waves, which becomes greater with increasing frequency, is avoided. Due to its high intrinsic frequency, the infrared radiation enables a very broadband data transmission with up to several 100 megabits per second, 10 Mbit/s being thus unproblemmatically possible.

The data transmission can ensue with amplitude modulation via the infrared base band or by higher-grade, digital modulation methods (OFDM, CDMA).

Infrared radiation in the wavelength range from 800 nm through 1000 nm can be employed for the data transmission, this being capable of being cost-beneficially produced by laser diodes or light-emitting diodes (LED). This frequency range, however, lies close to the visible range, so that certain intensity limits dare not be exceeded for protecting the eyes.

Another possibility is, for example, the wavelength range from 1200 nm through 1400 nm wherein the sensitivity of the eye is extremely low. Economical infrared sources in this frequency range are at their development stage.

In particular, the infrared source can be a vertical cavity surface-emitting laser. Semiconductor infrared detectors are suitable as infrared receiver, these working in the frequency range of the respective infrared source.

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The communication system can comprise a control means (5) for controlling the communication between the individual communication devices or base stations, the control means can also serve the purpose of producing a connection to an external communication network, for example the telephone network or a broadband TV cable network with coaxial cable, optical fiber cable or via a radio connection as well, what is referred to as a wireless local loop.

A communication cell can be formed by a room in a building such as a residence, an office building or a factory or can be formed by a garden or courtyard area in the environment of the building. The installed power supply network, for example a 230 volt network or a 110 volt network, ca be co-utilized for the data transmission between the cordless communication devices or base stations with one another.

Preferably, the cordless communication devices can be screwed into an incandescent bulb socket, as a result whereof the installation outlay is further reduced. In order to nonetheless create the possibility of room illumination at the location where the cordless communication device is arranged, the cordless communication device can preferably comprise an additional socket.

The invention is explained below on the basis of a preferred exemplary embodiment with reference to the drawing, wherein the sole Figure 1 shows an exemplary embodiment of the inventive broadband communication system.

By way of example, Figure 1 shows the application of the present invention to communication within a residential building. However, let it pointed out that the invention is definitely not limited to such applications. Of course, the communication cells can be rooms within an office building or can also be positioned out of doors. It is important that a communication between the cordless communication device 1 and the communication terminal 2 is directly or indirectly possible, for example by reflection at walls, in every communication cell.

The cordless communication devices are schematically shown in the drawing and are referenced 1. This can thereby be a matter of a radio transmitter/receiver that works at a frequency above 10 GHz, for example at 60 GHz. Preferably, the cordless communication device or the base station 1 can be a matter of

an infrared transmitter/receiver. The base stations 1 are arranged at the ceiling in the drawing, whereby some other arrangement is just as easily possible dependent on the shape of the room and the furnishings. For example, communication terminal devices 2 such as a television set or, respectively, a separate TV picture screen, a cordless telephone or a cordless picture telephone, a lap top computer or a surveillance camera 2 are shown. The communication terminal devices 2 are respectively equipped with a communication interface that enables a transmission to the respective base station 1 via radio or via infrared. When, for example, the user moves with his mobile telephone 2 from one room into a neighboring room or when he goes out into the garden, then an automatic handover between the individual communication cells occurs.

The individual cordless communication devices 1 respectively comprise a mains plug via which the electrical power required for the operation is supplied and via which the broadband data transmission also ensues. As a result thereof, the installation outlay required for installing the inventive communication system is reduced to "plugging" the base station 1 into the mains outlet.

Additionally, a control means of a head station 5 is provided that, as bus controller, distributes the data to the individual base stations 1 and also the handover. The control means 5 also produces the connection to external communication networks such as the telephone network or a broadband TV cable network. This connection between control means 5 and external network can ensue via cable (coaxial cable, optical fiber cable, or what is referred to as "twisted pair" cable) or can also ensue via radio via what is referred to as a wireless local loop. In the latter instance, for example, an external directional antenna (not shown) can be arranged on the roof of the building.

The base station 1 can be fashioned such that it can be screwed into a standard incandescent bulb socket. It is thus possible to install the base station at the ceiling of the room at lamp sockets where a beneficial radio or, respectively, infrared illumination of the communication cell or, respectively, of the room is possible. In a particular embodiment, the base station can comprise an additional standard incandescent bulb socket, so that the base station can, for example, be screwed into

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the ceiling incandescent bulb socket, whereby an incandescent lamp can in turn be attached to the base station.

The inventive broadband communication system enables a broadband cordless communication within buildings or in the environment of buildings, whereby the installation outlay is minimized.

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PATENT CLAIMS

1. Broadband communication system comprising a plurality of cordless communication devices (1) connected to one another for cordless communication with at least one communication terminal (2) within a communication cell, whereby the cordless communication devices (1) are connectible to a power supply network and are fashioned for broadband data transmission via the power supply network (4).

2. Communication system according to claim 1, characterized in that the cordless communication devices (1) are fashioned for cordless data transmission via radio.

3. Communication system according to claim , characterized in that the cordless communication devices (1) are fashioned for cordless data transmission via infrared radiation.

4. Communication system according to claim 3, characterized in that the data transmission between cordless communication device (1) and communication terminal (2) ensues with amplitude modulation of the infrared base band.

5. Communication system according to claim 3, characterized in that the data transmission between cordless communication device (1) and communication terminal (2) ensues by higher-grade, digital modulation.

6. Communication system according to one of the claims 3 through 5, characterized in that the infrared radiation has a wavelength from 800 nm through 100 nm.

7. Communication system according to one of the claims 3 through 5, characterized in that the infrared radiation has a wavelength from 1200 nm through 1400 nm.

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8. Communication system according to one of the claims 3 through 7, characterized in that the infrared source is a surface-emitting semiconductor laser (VCSEL).

9. Communication system according to one of the claims 1 through 8, characterized by a control means (5) for controlling the data communication between the cordless communication devices (1).

10. Communication system according to claim 9, characterized in that the control means (5) produces a connection to an external communication network.

11. Communication system according to claim 10, characterized in that the connection to the external communication network is produced with coaxial cable or optical fiber cable.

12. Communication system according to claim 10, characterized in that the connection to the external communication network ensues via a radio connection.

13. Communication system according to one of the claims 1 through 12, characterized in that the cordless communication devices (1) are fashioned for data transmission via a 230 volt or a 110 volt power supply network.

14. Communication system according to one of the claims 1 through 13 characterized in that a communication cell is formed by a room in a building.

15. Communication system according to one of the claims 1 through 14, characterized in that the cordless communication devices (1) can be screwed into an incandescent bulb socket.

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16. Communication system according to claim 15, characterized in that a cordless communication device comprises its own incandescent bulb socket.

ABSTRACT

Broadband Communication System

A broadband communication system comprises a plurality of cordless communication devices (1) for cordless communication with at least one communication terminal (2), for example a cordless telephone, a television receiver or a lap top computer, within a communication cell. The cordless communication devices (1) are connectible to the power supply network of, for example, a building and are fashioned for broadband data transmission with the other cordless communication devices (1) and/or a control means (5) via the power supply network. The cordless data transmission between cordless communication device or base station (1) and communication terminal (2) preferably ensues via infrared radiation. The invention enables a broadband cordless data transmission between various terminal devices (2) or from one terminal device to an external communication network given the lowest possible installation outlay.

Fig. 1

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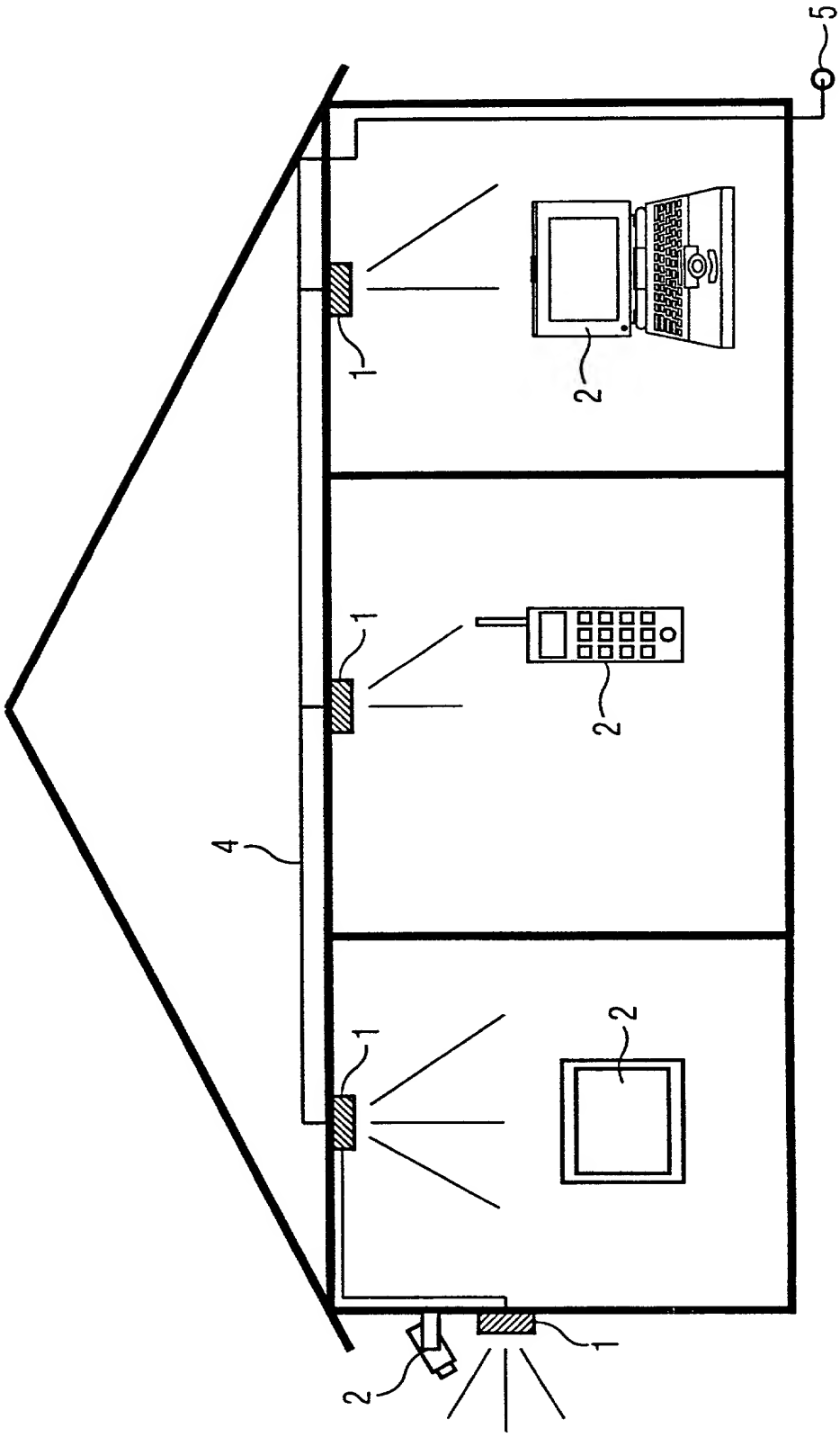

09674755 "09674755"

Declaration and Power of Attorney For Patent Application
Erklärung Für Patentanmeldungen Mit Vollmacht
German Language Declaration

Als nachstehend benannter Erfinder erkläre ich hiermit an Eides Statt:

As a below named inventor, I hereby declare that:

dass mein Wohnsitz, meine Postanschrift, und meine Staatsangehörigkeit den im Nachstehenden nach meinem Namen aufgeführten Angaben entsprechen,

My residence, post office address and citizenship are as stated below next to my name,

dass ich, nach bestem Wissen der ursprüngliche, erste und alleinige Erfinder (falls nachstehend nur ein Name angegeben ist) oder ein ursprünglicher, erster und Miterfinder (falls nachstehend mehrere Namen aufgeführt sind) des Gegenstandes bin, für den dieser Antrag gestellt wird und für den ein Patent beantragt wird für die Erfindung mit dem Titel:

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Breitband-Kommunikationssystem

____

deren Beschreibung

(zutreffendes ankreuzen)

☒ hier beigefügt ist.

☐ am ________________ als
PCT internationale Anmeldung
PCT Anmeldungsnummer ________________
eingereicht wurde und am ________________
abgeändert wurde (falls tatsächlich abgeändert).

the specification of which

(check one)

☐ is attached hereto.

☐ was filed on ________________ as
PCT international application
PCT Application No. ________________
and was amended on ________________
(if applicable)

Ich bestätige hiermit, dass ich den Inhalt der obigen Patentanmeldung einschliesslich der Ansprüche durchgesehen und verstanden habe, die eventuell durch einen Zusatzantrag wie oben erwähnt abgeändert wurde.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims as amended by any amendment referred to above.

Ich erkenne meine Pflicht zur Offenbarung irgendwelcher Informationen, die für die Prüfung der vorliegenden Anmeldung in Einklang mit Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) von Wichtigkeit sind, an.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

Ich beanspruche hiermit ausländische Prioritätsvorteile gemäss Abschnitt 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 119 aller unten angegebenen Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde, und habe auch alle Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde nachstehend gekennzeichnet, die ein Anmeldedatum haben, das vor dem Anmeldedatum der Anmeldung liegt, für die Priorität beansprucht wird.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

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Prior foreign appplications
Priorität beansprucht

Priority Claimed

198 20 760.3	Germany	08. Mai 1998	☒	☐
(Number) (Nummer)	(Country) (Land)	(Day Month Year Filed) (Tag Monat Jahr eingereicht)	Yes Ja	No Nein
			☐	☐
(Number) (Nummer)	(Country) (Land)	(Day Month Year Filed) (Tag Monat Jahr eingereicht)	Yes Ja	No Nein
			☐	☐
(Number) (Nummer)	(Country) (Land)	(Day Month Year Filed) (Tag Monat Jahr eingereicht)	Yes Ja	No Nein

Ich beanspruche hiermit gemäss Absatz 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 120, den Vorzug aller unten aufgeführten Anmeldungen und falls der Gegenstand aus jedem Anspruch dieser Anmeldung nicht in einer früheren amerikanischen Patentanmeldung laut dem ersten Paragraphen des Absatzes 35 der Zivilprozeßordnung der Vereinigten Staaten, Paragraph 122 offenbart ist, erkenne ich gemäss Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) meine Pflicht zur Offenbarung von Informationen an, die zwischen dem Anmeldedatum der früheren Anmeldung und dem nationalen oder PCT internationalen Anmeldedatum dieser Anmeldung bekannt geworden sind.

I hereby claim the benefit under Title 35. United States Code. §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §122, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occured between the filing date of the prior application and the national or PCT international filing date of this application.

(Application Serial No.) (Anmeldeseriennummer)	(Filing Date) (Anmeldedatum)	(Status) (patentiert, anhängig, aufgegeben)	(Status) (patented, pending, abandoned)
(Application Serial No.) (Anmeldeseriennummer)	(Filing Date) (Anmeldedatum)	(Status) (patentiert, anhängig, aufgeben)	(Status) (patented, pending, abandoned)

Ich erkläre hiermit, dass alle von mir in der vorliegenden Erklärung gemachten Angaben nach meinem besten Wissen und Gewissen der vollen Wahrheit entsprechen, und dass ich diese eidesstattliche Erklärung in Kenntnis dessen abgebe, dass wissentlich und vorsätzlich falsche Angaben gemäss Paragraph 1001, Absatz 18 der Zivilprozessordnung der Vereinigten Staaten von Amerika mit Geldstrafe belegt und/oder Gefängnis bestraft werden koennen, und dass derartig wissentlich und vorsätzlich falsche Angaben die Gültigkeit der vorliegenden Patentanmeldung oder eines darauf erteilten Patentes gefährden können.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

German Language Declaration

VERTRETUNGSVOLLMACHT: Als benannter Erfinder beauftrage ich hiermit den nachstehend benannten Patentanwalt (oder die nachstehend benannten Patentanwälte) und/oder Patent-Agenten mit der Verfolgung der vorliegenden Patentanmeldung sowie mit der Abwicklung aller damit verbundenen Geschäfte vor dem Patent- und Warenzeichenamt: *(Name und Registrationsnummer anführen)*

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*

And I hereby appoint

Messrs. John D. Simpson (Registration No. 19,842) Lewis T. Steadman (17,074), William C. Stueber (16,453), P. Phillips Connor (19,259), Dennis A. Gross (24,410), Marvin Moody (16,549), Steven H. Noll (28,982), Brett A. Valiquet (27,841), Thomas I. Ross (29,275), Kevin W. Guynn (29,927), Edward A. Lehmann (22,312), James D. Hobart (24,149), Robert M. Barrett (30,142), James Van Santen (16,584), J. Arthur Gross (13,615), Richard J. Schwarz (13,472) and Melvin A. Robinson (31,870), David R. Metzger (32,919), John R. Garrett (27,888) all members of the firm of Hill, Steadman & Simpson, A Professional Corporation.

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(Bitte entsprechende Informationen und Unterschriften im Falle von dritten und weiteren Miterfindern angeben).

(Supply similar information and signature for third and subsequent joint inventors).